

REMARKS

Claims 1-19 are pending in this application. Claims 1, 7, 13, and 19, the independent claims, have been amended to define still more clearly what Applicants regard as their invention.

Claims 1, 4, 7, 10, 13, 16, and 19 were rejected under 35 U.S.C. § 103(a) as being obvious from U.S. Patent 4,602,333 to Komori in view of U.S. Patent 5,673,338 to Denenberg et al; Claims 5, 11, and 17, as obvious from Komori and Denenberg et al. in view of U.S. Patent 4,949,287 to Yamaguchi et al.; and Claims 2, 3, 6, 8, 9, 12, 14, 15, and 18, as being obvious from Komori and Denenberg et al. in view of U.S. Patent 6,078,005 to Kurakake et al.

The present invention is directed to the storing of images in databases, and to improvements in techniques for searching for a desired image. As explained in more detail in the present application, the standard approaches in this field often result in certain problems. For example, it often takes a very long period of time to access the images, particularly if the number of images is large. Also, management such as file movement and the like is often troublesome, particularly for a large number of images. The present invention is intended to ameliorate these and other problems which have plagued the prior art.

Claim 1 is directed to an image storage method. A plurality of image data is continuously stored in a first area of a single file. Reference information, for accessing a source outside the file, which pertains to each of the plurality of image data stored in the image storage step, is stored in a storage order of the plurality of image data in a second area of the file. The reference information includes location information for accessing

image data which is a higher resolution version of the corresponding image data stored in the first area. The single file stores both the plurality of image data and the reference information.

Among the notable features of Claim 1 are that a single file includes a plurality of image data and includes reference (location) information for accessing image data which is a higher resolution version of each of the plurality of image data. By virtue of the features of Claim 1, since a plurality of image data can be managed by a single file while the data size of the single file is kept small, management of a plurality of image data can easily be performed.

Komori, as understood by Applicants, relates to storing image data in both original and compressed forms. The image processing apparatus of Komori includes an image data production device, a main memory, a compression circuit, a write circuit, a magnetic disk, a read circuit, an expansion circuit, and an image processing device. The magnetic disk has at least two storage areas. The compressed image data and the non-compressed image data are made from one image data, and the compressed image data has priority over the non-compressed image data in the storage operation of the magnetic disk.

The Office Action states that "Komori does not teach storing reference information, wherein the reference information includes location information for accessing image data which is a higher resolution version of the corresponding image data stored in the first area." Moreover, Komori merely discusses writing compressed data in the first storage area in the magnetic disk 23 and writing non-compressed data in the second storage area therein (see, e.g., column 4, lines 62-64). While Komori may discuss that compressed and non-compressed data of one image are stored in a data file, Komori fails to teach or

suggest that a plurality of image data corresponding to a plurality of different images are stored in a single file.

Denenberg et al., as understood by Applicants, relates to a system for determining the authenticity of an item such as an original work of art or other valuable items. The system utilizes images of one or more unique patterns of features, preferably at a microscopic level, as one or more "signatures" of the item. The image of this unique signature is recorded and stored electronically as data representing the unique pattern. The data is registered with identifying text and stored in a secure storage location, to prevent unauthorized duplication or use of the stored data. Following this registration and storage, an item presented as authentic can be examined microscopically at prescribed sites on the item where the original images were taken. Fig. 5 illustrates schematic views showing an image and a series of higher level enlargements.

Denenberg et al. merely discusses accessing an external site for obtaining larger image versions, as shown in Fig. 5, and fails to teach or suggest a file structure as recited in Claim 1. Nothing in Deneberg et al., or Komori, either alone or in any permissible combination (if any), teaches or suggests that a single file includes a plurality of image data and includes reference (location) information for accessing image data which is a higher resolution version of each of the plurality of image data, as recited in Claim 1.

Accordingly, it is submitted that Claim 1 is patentable over Komori and Denenberg et al., either alone or in any permissible combination (if any).

Independent Claims 7, 13, and 19 each correspond to Claim 1, and are believed to be patentable for at least the same reasons as discussed above in connection with Claim 1.

A review of the other art of record has failed to reveal anything which, in Applicants' opinion, would remedy the deficiencies of the art discussed above, as references against the independent claims herein. Those claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,


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